

Beihang University, Beijing, 25.9.2018

The protection of industrial data in the EU

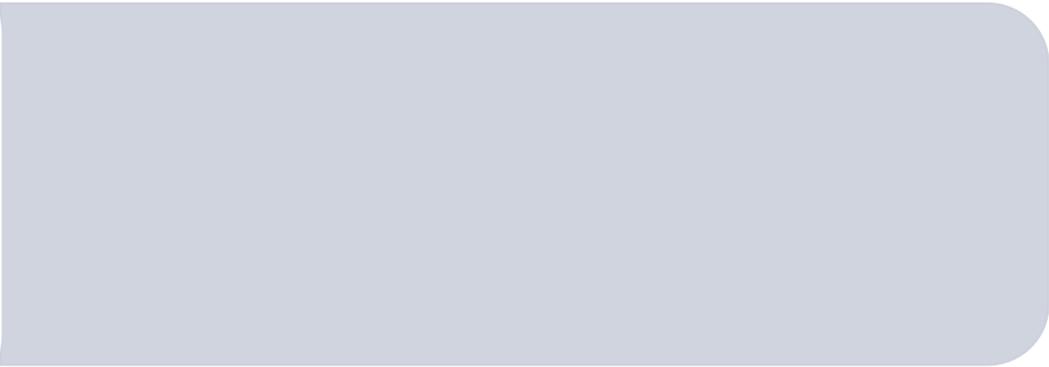
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1. Introduction: the EU

- Art 1 [TEU](#): By this Treaty, the HIGH CONTRACTING PARTIES establish among themselves a EUROPEAN UNION, hereinafter called 'the Union', on which the Member States confer competences to attain objectives they have in common.
- Art 5 (1) TEU: The limits of Union competences are governed by the principle of conferral. The use of Union competences is governed by the principles of subsidiarity and proportionality.
 - → A multi-level, federal system:

1. Introduction: the EU

- → A multi-level, federal system:



28 EU
Member
States

- Further federal fragmentation, e.g. Germany

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- → A multi-level, federal system:

EU

- Supranational lawmaking power

28 EU
Member
States

- Further federal fragmentation, e.g. Germany

1. Introduction: the EU

- The establishment of the internal market as one of the objectives of the EU (Art. 3 no. 3 TEU):
 - The Union shall establish an **internal market**.
 - From 27 national markets to one EU market.
 - It shall work for the sustainable development of Europe based on balanced economic growth and price stability, a **highly competitive social market economy**, aiming at full employment and social progress, and a high level of protection and improvement of the quality of the environment. It shall promote scientific and technological advance.

1. Introduction: the EU

- Art 288 Treaty on the Functioning of the EU ([TFEU](#)): To exercise the Union's competences, the institutions shall adopt regulations, directives, decisions, recommendations and opinions.
 - A regulation shall have general application. It shall be binding in its entirety and directly applicable in all Member States.
 - One single law for the EU
 - A directive shall be binding, as to the result to be achieved, upon each Member State to which it is addressed, but shall leave to the national authorities the choice of form and methods.
 - Harmonization of 28 national laws
 - Minimum harmonization and full harmonization

2. Introduction: Data

- Communication by the European Commission, 10.1.2017:
[Building a European Data Economy](#)
 - The data economy ... involves the generation, collection, storage, processing, distribution, analysis, elaboration, delivery, and exploitation of data enabled by digital technologies.
 - Data has become an essential resource for economic growth, job creation and societal progress.
 - The value of the EU data economy ... will increase to EUR 643 billion by 2020, representing 3.17% of the overall EU GDP.
 - Car mobility data: 350,- € per year and car in Germany
 - Data holder: The entity that manages and retains the machine-generated data in practice.

2. Introduction: Data

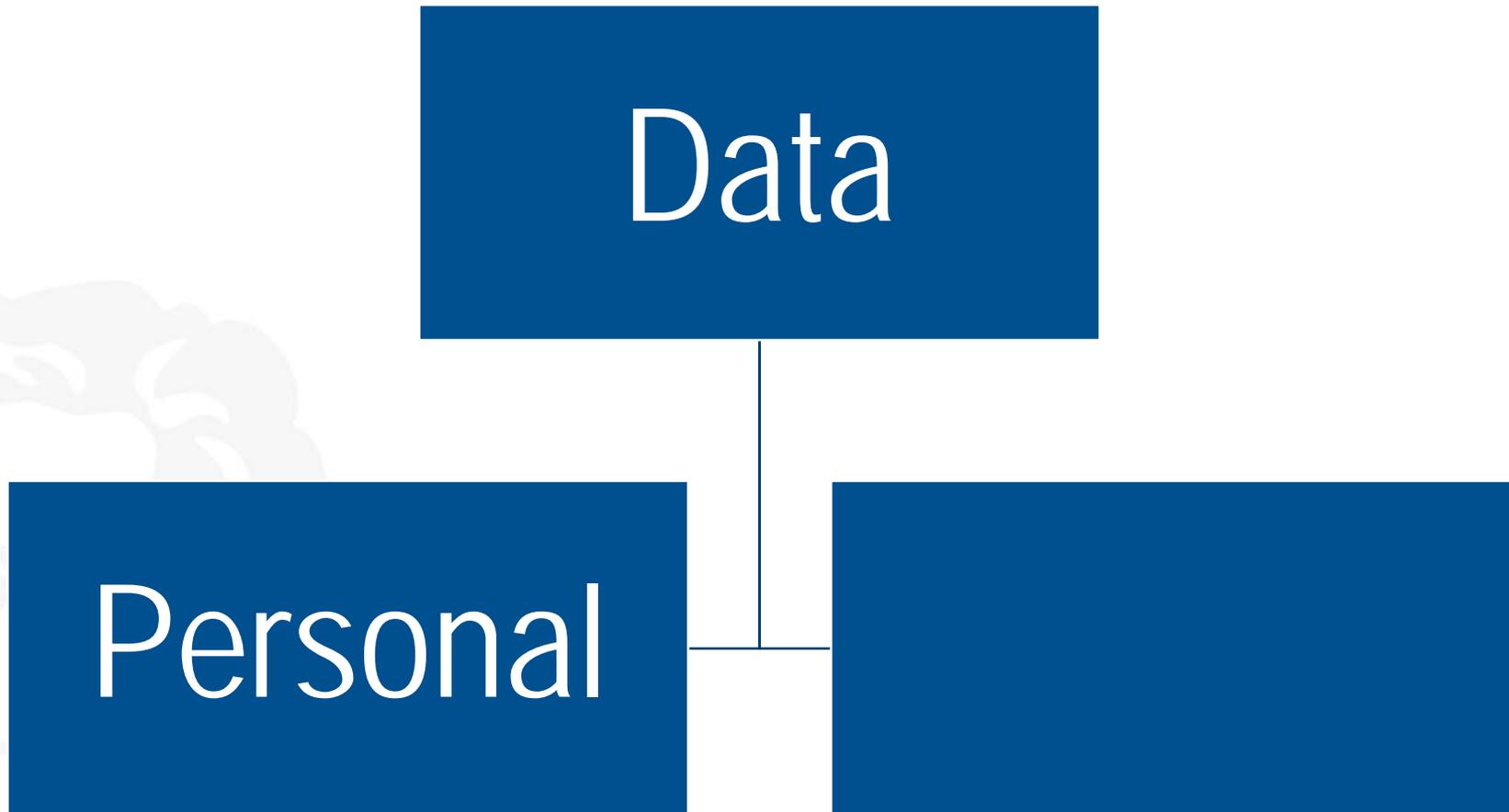
- Economics of data and the (near) zero marginal cost economy
 - Jeremy Rifkin: *The Zero Marginal Cost Society: The Internet of Things, the Collaborative Commons, and the Eclipse of Capitalism* (2014)
 - Mark Lemley: [The End of Scarcity](#) (2015)
 - The Internet, 3D printers, synthetic biology, and robotics radically reduce the cost of production and distribution of things, and they separate the informational content of those things (the design) from their manufacture.
 - The core role of rights in the informational content (data):
 - You have to own the “informational content” in order to be able to ask a positive price.

3. Two types of data in the EU

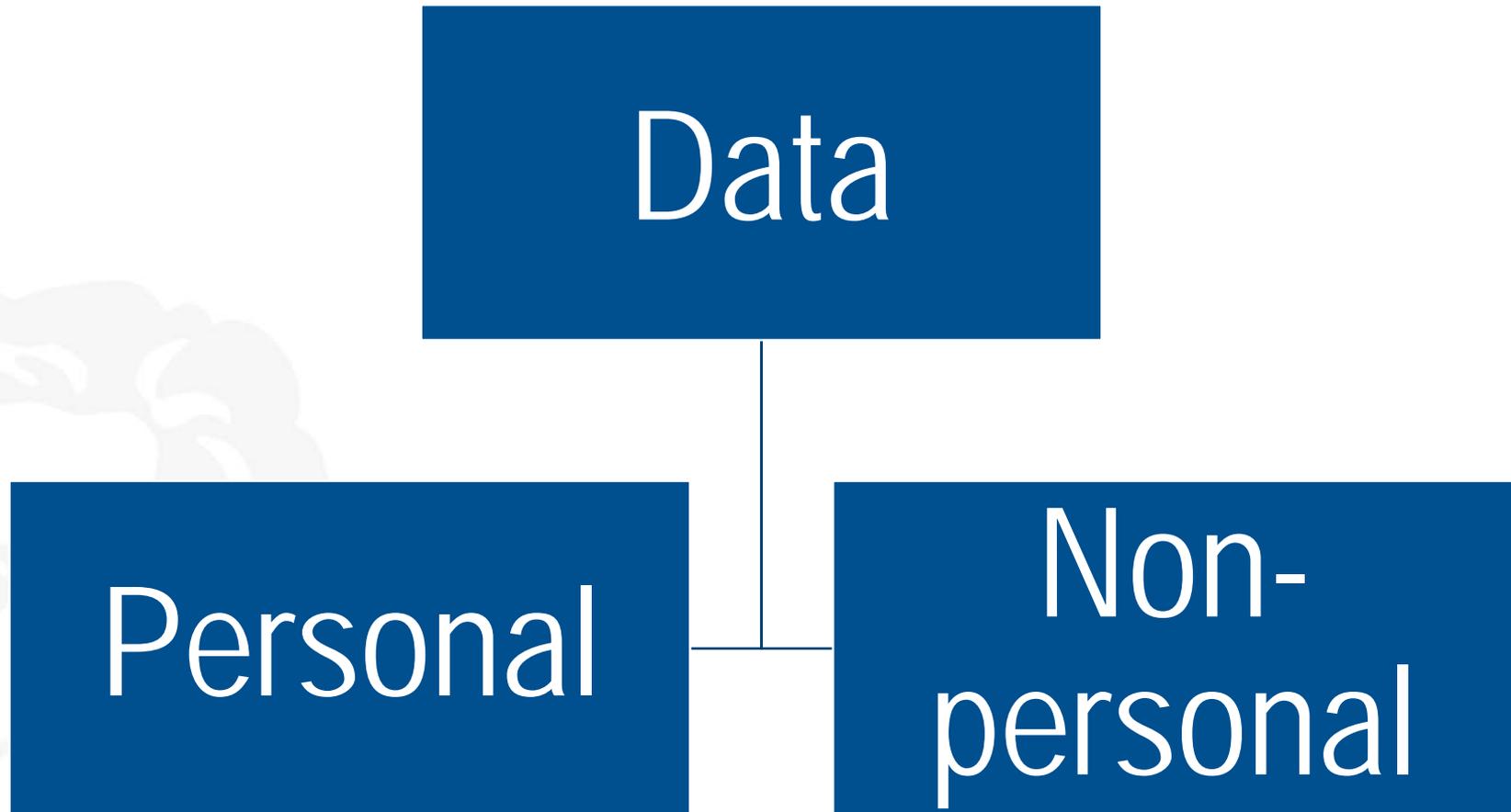


Data

3. Two types of data in the EU



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4. The legal status of personal data

- General Data Protection Regulation 2016/679
 - Protects fundamental rights and freedoms of natural persons and in particular their right to the protection of personal data (Art. 1(2))
 - Not a transferable property right!
 - Applies to the automated and non-automated processing of personal data
 - in the context of activities of an establishment of a controller or a processor in the Union, regardless of whether the processing takes place in the Union or not
 - of data subjects who are in the Union by a controller or processor not established in the Union, where the processing activities are related to the offering of goods or services to such data subjects in the Union or the monitoring of their behaviour taking place within the Union (Art. 2, 3)

4. The legal status of personal data

- General Data Protection Regulation 2016/679.
 - Principles, Art. 5: Personal data shall be collected, inter alia
 - for specified, explicit and legitimate purposes and not further processed in a manner that is incompatible with those purposes ('purpose limitation');
 - Not suitable for a dynamic data market

4. The legal status of personal data

- General Data Protection Regulation 2016/679.
 - Lawfulness of processing, Art. 6: Processing shall be lawful only if:
 - the data subject has given **consent** to the processing of personal data for one or more specific purposes
 - The data subject shall have the right to withdraw his or her consent at any time (Art. 7(3))
 - processing is necessary for the performance of a contract to which the data subject is party or in order to take steps at the request of the data subject prior to entering into a contract;
 - processing is necessary for compliance with a legal obligation to which the controller is subject;
 - processing is necessary in order to protect the vital interests of the data subject or of another natural person;
 - processing is necessary for the purposes of the legitimate interests pursued by the controller or by a third party.
 - Not supportive but opposed to a dynamic data market

4. The legal status of personal data

- General Data Protection Regulation 2016/679
 - Art. 20: Right to data portability
 - The data subject shall have the right to receive the personal data concerning him or her, which he or she has provided to a controller, in a structured, commonly used and machine-readable format and have the right to transmit those data to another controller without hindrance from the controller to which the personal data have been provided, where the processing is based on consent and carried out by automated means.

4. The legal status of personal data

- Summary: General Data Protection Regulation 2016/679
 - Assigns all rights to the individual data subject, i.e. the natural person who uses a data generating machine
 - The “data holder” (supra) has a very limited privilege to use personal data
 - → Deliberate obstacle for a data economy in so far as personal data are concerned

4. The legal status of personal data

- General Data Protection Regulation 2016/679
 - Art. 4(1) '**personal data**' means any information relating to an **identified or identifiable natural person** ('data subject');
 - an identifiable natural person is one who can be identified, directly or indirectly, in particular by reference to an identifier such as a name, an identification number, location data, an online identifier or to one or more factors specific to the physical, physiological, genetic, mental, economic, cultural or social identity of that natural person

4. The legal status of personal data

- General Data Protection Regulation 2016/679
 - [CJEU Case 582/14 Breyer](#): A dynamic IP address registered by a **website operator** when a person accesses a website will qualify as personal data where the website operator has the legal means to identify the data subject with additional data which **the internet service provider** has about that person.
 - Anonymization as a way to avoid data protection laws
 - But: of limited use if the data are processed within one company (eg a machine maker)

4. The legal status of personal data

- Examples: Personal and non-personal data
 - data generated by home temperature sensors
 - Personal data
 - data on soil humidity for farming purposes
 - Non-personal data
 - location data of mobile applications
 - Personal data
 - data generated by sensors in traffic lights for traffic management, or route optimisation
 - Non-personal data

5. The legal status of non-personal data

- Non-personal data: Protected by exclusive property rights?
 - Real property under the [German civil code](#) (§ 903)
 - But: data not tangible
 - Different: loss of data due to destruction of data carrier = tort (but: only protects the owner of the data carrier, not the data holder)
 - ©: Author's own intellectual creation
 - But: machine generated raw data (-)
 - [Criminal law](#): data espionage and data tampering

5. The legal status of non-personal data

- Non-personal data: Indirect protection via the sui generis protection of databases according to Art. 7 et seq.
[Database Directive 1996/9:](#)
 - Member States shall provide for a right **for the maker of a database** if there has been ... investment in ... **the contents of that database.**
 - **Note:** The sui generis right applies irrespective of eligibility of the contents of that database for protection by copyright or by other rights: → industrial data (+)

5. The legal status of non-personal data

- Non-personal data and the sui generis right in databases:
 - Member States shall provide for a right for the maker of a database if there has been **qualitatively and/or quantitatively a substantial investment** in either the obtaining, verification or presentation of the contents to prevent extraction and/or re-utilization of the whole or of a substantial part, evaluated qualitatively and/or quantitatively, of the contents of that database.
 - **Note:** Low threshold: < 10.000 € suffices

5. The legal status of non-personal data

- Non-personal data and the sui generis right in databases:
 - Member States shall provide for a right for the maker of a database which shows that there has been qualitatively and/or quantitatively a substantial investment **in either the obtaining, verification or presentation of the contents** to prevent extraction and/or re-utilization of the whole or of a substantial part, evaluated qualitatively and/or quantitatively, of the contents of that database.
 - **Note:** Directive does not protect the resources used for the creation of materials which make up the contents of a database ([ECJ British Horseracing Board 2004](#))

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5. The legal status of non-personal data

- Summary: Non-personal data and the sui generis right in databases:
 - As a rule, makers of data-generating machines who collect, structure and use these industrial data (“data holders”) acquire an exclusive right in the respective database.
 - Can prevent the copying and further use of all or of a significant part of the data

5. The legal status of non-personal data

- Non-personal data: Protection under the [Trade Secret Directive 2016/943](#)
 - ‘trade secret’ means information which meets all of the following requirements:
 - (a) it is secret in the sense that it **is not**, as a body or in the precise configuration and assembly of its components, **generally known** among or readily accessible to persons within the circles that normally deal with the kind of information in question;
 - (b) it **has commercial value because it is secret**;
 - (c) it has been subject to **reasonable steps** under the circumstances, by the person lawfully in control of the information, **to keep it secret**;
 - → As a rule, industrial data collections constitute protected “trade secrets”

5. The legal status of non-personal data

- Non-personal data as trade secrets:
 - The trade secret holder can prevent:
 - The unauthorized **acquisition of a trade secret** whenever carried out by unauthorised access to secret documents etc.;
 - The unauthorized **use or disclosure of a trade secret** whenever carried out by a person who
 - has acquired the trade secret unlawfully;
 - is in breach of a confidentiality agreement or any other duty not to disclose or use the trade secret
 - The production, offering, placing on the market, importation, export or storage of **infringing goods** for those purposes ... where the person carrying out such activities knew, or ought, under the circumstances, to have known that the trade secret was used unlawfully.

5. The legal status of non-personal data

- Non-personal data: Contractual arrangements
 - Contract between the producer of a machine and the user (owner) of the machine about the generation and access to industrial data
 - Important if machine maker/data holder does neither enjoy protection as a database producer nor as a trade secret holder
 - Validity of contractual limitations regulating access to and use of industrial data depends upon national contract law ([CJEU Ryanair 2015](#))

5. The legal status of non-personal data

- Non-personal data
 - Technological measures
 - Factual control about the access to and use of industrial data
 - Legal protection against hacking
 - Criminal law (see supra)
 - Directives on Digital Rights Management in the copyright field do not apply (no copyrighted content is concerned)
 - [Conditional Access Directive 1998/84](#)
 - [Information Society Directive 2001/29](#)

5. The legal status of non-personal data

- Summary:
 - Protection of industrial, non-personal data via
 - The sui generis right in databases
 - Trade secret protection
 - Contract and criminal/tort law
 - But no protection of non-personal, industrial data as such

5. The legal status of non-personal data

- Outlook:
 - Proposals for a new right in non-personal data as such
 - Cui bono?
 - The maker of the machine?
 - Or the operator/user of the machine?
 - Implications in a (near) zero marginal cost economy
 - From the perspective of machine producers
 - From the perspective of large platforms (“lords of the cloud”/“masters of the universe”)
 - Special access rights to industrial data for
 - Governments
 - Science and research
 - Majority opinion: wait and see (e.g. [Study for the EU Comm 2016](#))